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The Role of the Smart Mobile Libraries in India

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Abstract : Libraries have always adopted new technologies and new digitization and to assist in their objective of providing clients with effective and efficient services, as well as timely access to needed information. Implementation of Information and Communication Technologies has changed the way people access and communicate information. Users want easy, instant access to relevant information & putting pressure on Library & Information Science professionals to think out of the box for meeting their information needs. The development of mobile technology has resulted in shifting the academic (Universities) environment from traditional to mobile learning settings. This paper describes mobile technologies applications in library & Information services. Finally, it conceives the future of mobile library technology.

IndexTerms - Smart Mobile Library, Technology, Academic libraries, Library services, University.

I. INTRODUCTION

Nowadays The wireless technology and smart mobile phones are becoming an integral part of everyday life. Mobile phones have wide variety of applications. Mobile technology has made communication and information access very convenient and timely to users from the comfort of their own homes and offices. Already smart mobile devices have made significant impact on banking, tourism and health services.

People use a mobile phone as their primary interface for surfing the Web, listening to music, watching television, reading books, and interacting with friends. So the smart mobile phone has become one of the major interfaces people use to access and share information.

Librarians must be proportionate with this trend and integrate themselves into the mobile realm if they wish to deliver enhanced user services. With a simple 4G/5G connection, a user can access e-books and multimedia content from a local library. When one thinks of mobile technologies, the first device that comes to mind has to be the cell phone or the Smartphone. Beginners to the Smartphone in the library may want to consider a mobile based website, a stripped-down design that reads well on small screens. These sites do not require too much web design knowledge (remember that well-designed mobile sites do not have complicated code or scripting languages) and can be designed in-house Library policies, services should be flexible and open so that new information needs of users in pursuit of organizational needs are met with new technology. The task of new libraries is to exploit new technology in a more effective way to promote and integrate them into the design of future library services in a cost-efficient manner. Mobile libraries have to grow, and this requires greater collaboration between academic, industry, corporations and government.

New hardware and technologies such as Bluetooth, accelerometers, and multi touch screens, as well as text messaging, smart mobile phone software applications, mobile websites, global positioning systems (GPS), Wi-Fi, media creation and capture tools, are all part of the mobile environment. Many of today's mobile devices are increasingly "always on", that is, by default meant to be connected to a wireless network (Srinivasa Rao Nalluri & Brahmaiah Gaddam, 2016).

Library services through mobile technology

Library services that can be providing via mobile technology are as follows.

1. **SMS notification services-** Libraries may provide the alerts on latest news, events and notices via SMS and MMS to users wherever they might be go. The users can get notified instantly with notice alerts such as- alerts on bringing new books to the notice of users for suggestion, intimation of arrival of indented documents by users, informing availability of reserved documents for collection, appraising about overdue books, outstanding fines, reminders to return library items, renew books, library circulars, ejournals subscribed, change in timings, information about important events & loan request etc. Such alert notifications can be generated automatically using integrated library management system or software.
2. Mobile based library services. users simultaneously through many free applications and intermediary websites/clients.

3. **Formal Education, Distance Learning and E-learning-**
   Students are very versatile in using their mobile phones and various mobile applications. Academic libraries can harness the advantage to lead implementation of library services through mobile devices to support distance learning, formal education, research activities in elearning environment by making the information resources ubiquitous. Library services

should also blend with teaching and research practice of colleges or universities, scientific community or other patrons whom they serve.

3. **Database Browsing-** Libraries provide access to a variety of its resource and databases. This service includes OPAC (Online Public Access Catalogue), integrated search, and original document search. OCLCs WorldCat Mobile application allows users to search for, find books and other materials available in their libraries through a web application they can access from a PDA or a smart mobile phone.

4. **My library-** My library is a personal library space where users can find information and resources of their choosing. Users can read alerts, check records, renew resources & request items, track interlibrary loans and document delivery requests, set up gmail notices of new book and journal articles, set up preferences for catalogue searching, etc.

5. **E-resources with Mobile Interfaces-** Some publishers are already delivering ebooks (both text and audio) that are accessible via mobile phones. It offers access to a variety of databases and digital resources such as eBooks, eJournals, Web databases, dissertations, audio books, streaming music, films, images and article databases which can be used on mobile. These collections can either be downloaded from the library websites on users own mobile devices or libraries lend mobile devices with the collections already on them. A large collection of audio books both free-and subscription-based services are available for download and also transferable to mobile devices. Libraries can make use of multimedia messaging service (MMS.) on mobile devices to share photos, videos, audio. Most of the e-book publishers provide 24X7 accesses to the library subscriptions from any internet terminal within the campus, as well on mobile devices, such as iPads, Android devices and ect.

6. **Library guide-** Libraries can give users the best of library guide information such as library use guide, question answering service, and library statistics delivering rich content in a way that works best for users. If users have questions and want to contact the librarian for help, they can get a fast response from the library via the mobile device and find the appropriate information needed.

7. **Mobile document supply-** The mobile environment and technology present new opportunities for sending document requests and scanned images and monitoring the use of collections as well as the automation of administrative operations. It can support electronic funds transfer, supply chain management, E-marketing, online marketing & online transaction processing, electronic data interchange, and automated inventory management systems.

8. **Text reference service-** If the library receives a high volume of enquiries that require brief responses, such as dictionary definitions, facts or service information then Librarians can provide instant answers, and links to articles/references in real time.

9. **Library Virtual and Audio Tours-** Library Virtual & Audio tours, instruction/induction/orientation programs have been quite significant in bringing the nonusers to libraries and also help the remotely located or users located in different geographical locations. Library users, who don't have time or inclination to attend an on-site workshop, can get access to library tours on their mobile devices. Audio/ virtual library tours spent helping new users to orient themselves in the library and explaining the facilities available. It can easily be provided both as downloads from the library website and on mobile devices.

10. **QR Codes on Mobiles-** QR code stands for "quick response", and basically two-dimensional bar codes that can contain any alphanumeric text and often used to store URL's, text, etc., known as "mobile tagging". Data can be translated into a QR Code by any QR Code generator, many of which are available as free download. Users simply enter the data to be translated, and the generator produces the code, which can then be displayed electronically or in printed format. Decoding the information can be done with any mobile camera phone that has a QR reader, which is freely available online for most devices.

Mobile technology implementation advantages in libraries.

Advantages of implementation of mobile technology in libraries are as follows.

1. **User-friendly-** Familiarity with their own devices and technology helps the users in accessing information quickly and does not require orientation and training. Mobile users are using the facilities on mobile phones like SMS, instant messaging, web browsing, e-mail effortlessly to communicate. Most of these features are pre-installed on mobile devices or option for data plan packages.

2. **Personalized Service-** Personalized service helps users to interact with library staff to seek specific information or reference away from library.

3. **Ability to Access Information-** Information access from anywhere at any time will be of great help for users who cannot visit library in person and provides a constant link to required information resources.

4. **Time Saving-** Users need not record information about resources while browsing and searching library resources or wait at library transaction counter to renew/reserve books and hence the time of the user is saved.

6. **Location Awareness-** Mobile communication enables libraries to offer location-based services/content through global positioning system (GPS) capabilities. Libraries can guide the users to the location of specific document or service through maps and navigational tools.

7. **Limitless Access-** All online resources accessible on their desktop also become accessible through mobiles.

8. **Access to Print-disabled-** Users Mobiles communications help providing services orally to vision-disabled and physically challenged users.

Applications, Mobile websites & OPACs.

Conclusion

The active nature of technology has significant impact on every aspect of modern life. Particularly information and communication technologies (ICT) have provided faster access to information and it is also demanding the libraries to rethink and modernize their services adopting the technological changes. In the present world, libraries are not solo information providers. Internet facilities provide broad range of information; the content may not always be free or with value addition. To target its place as an information provider, libraries must not hesitate to adopt all possible new technologies like ICT, Wi-Fi, mobile communications, etc,. There is a greater influence of mobile technology on Libraries, particularly as network access becomes more affordable and reliable, the libraries can adapt to this emerging trend to make the libraries easily accessible via mobile devices.

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